

Claims

- [c1] 1. A launching device, comprising:
- a launch unit including a first coupling element and second coupling element;
 - a barrel releasably connected to said first coupling element;
 - a cylinder releasably connected to said second coupling element; and
 - a selector pin operably connected to said launch unit, wherein said selector pin is moveable between a first position and a second position, said first position permitting a partial evacuation of the contents of said cylinder to be expelled from said cylinder, and said second position permitting the entire contents of said cylinder to be expelled from said cylinder.
- [c2] 2. The launching device of claim 1, wherein said cylinder contains compressed gas.
- [c3] 3. The launching device of claim 1, wherein said cylinder contains liquid carbon dioxide.
- [c4] 4. The launching device of claim 2, wherein said compressed gas includes air.

- [c5] 5. The launching device of claim 2, wherein said compressed gas includes nitrogen.
- [c6] 6. The launching device of claim 1, further comprising a launch tube slidably received on said barrel, said launch tube configured to be connected to an object to be propelled outwardly from the launching device.
- [c7] 7. The launching device of claim 6, wherein said object includes a grappling hook.
- [c8] 8. The launching device of claim 6, wherein said object is adapted to be connected to said launch tube with a clip.
- [c9] 9. The launching device of claim 1, wherein said launch unit further includes a bolt assembly having a hollow bolt, a trigger and a locking sear, said bolt assembly being movable between a first and second position, and a valve assembly connected to said cylinder and to said second coupling element.
- [c10] 10. The launching device of claim 9, wherein upon actuation of said trigger said bolt assembly moves from said first position to said second position into engagement with said valve assembly and said locking sear engages said bolt assembly holding said bolt assembly in said second position.

- [c11] 11. The launching device of claim 10, wherein the contents of said cylinder are fully expelled from said cylinder upon actuation.
- [c12] 12. A launching device, comprising:
a launch unit, a trigger, a bolt assembly having a hollow bolt, and a locking sear, said bolt assembly movable between a first position and a second position;
a barrel connected to said launch unit;
a valve assembly connected to said launch unit;
a cylinder connected to said valve assembly; and
wherein upon actuation of said trigger, said bolt assembly moves from said first position to said second position into engagement with said valve assembly and said locking sear engages said bolt assembly holding said bolt assembly in said second position.
- [c13] 13. The launching device of claim 12, wherein said cylinder includes liquid carbon dioxide.
- [c14] 14. The launching device of claim 12, wherein said cylinder includes compressed gas.
- [c15] 15. The launching device of claim 14, wherein said compressed gas includes nitrogen.

- [c16] 16. The launching device of claim 14, wherein said compressed gas includes air.
- [c17] 17. The launching device of claim 12, wherein said barrel is pivotally connected to said launch unit.
- [c18] 18. The launching device of claim 12, wherein the content of said cylinder is fully evacuated upon actuation of said trigger.
- [c19] 19. The launching device of claim 12, further including a launch tube slidably received on said barrel, said launch tube configured to connect to an object to be projected outwardly from the launching device.
- [c20] 20. The launching device of claim 12, wherein said object includes a grappling hook.
- [c21] 21. The launching device of claim 12, wherein said object is adapted to be connected to said launch tube with a clip.
- [c22] 22. The launching device of claim 13, wherein said barrel is cone shaped and includes a diffuser and said liquid carbon dioxide is expelled from the launching device to use the launching device as a fire extinguisher.
- [c23] 23. A method of using a launching device to project an object, the launching device having a launch unit, the

launch unit including a first coupling element, a second coupling element and a trigger, the method comprising the steps of:

selecting a barrel from a plurality of barrels;
releasably quick connect coupling said selected barrel to one of the first and second coupling elements;
and
releasably quick connect coupling a cylinder to the other of the first and second coupling elements.

[c24] 24. A method of using a launching device as defined in claim 23 further including the step of releasably connecting a grappling hook to said selected barrel.

[c25] 25. A method of using a launching device as defined in claim 23 further including the step of selecting the quantity of the contents of the cylinder to be expelled from said cylinder.

[c26] 26. A method of using a launching device as defined in claim 23 further including the step of propelling an object from the launching device upon actuation of the trigger.

[c27] 27. A method of using a launching device as a fire extinguisher, the launching device having a launch unit, the launch unit including a first coupling element, a second

coupling element and a trigger, the method comprising the steps of:

- releasably quick connect coupling a cone shaped barrel having a diffuser to one of the first and second coupling elements;

- releasably quick connect coupling a cylinder to the other of the first and second coupling elements, said cylinder containing liquid carbon dioxide;

- expelling the contents of the cylinder from the launching device upon actuation of the trigger, wherein the liquid carbon dioxide is converted to a dry ice substance as it passes through the diffuser.